

### **REMARKS**

Claims 1-5 are pending. Claim 3 is currently canceled. Claim 1 is currently amended. Claim 1 has been amended to delete the product by process limitations to the treated surface of the heat resistant backing film layer and the nonaqueous monomer mixture added in the previous Amendment. Claim 1 has also been amended to add limitations (1) that the heat resistant backing film layer is selected from the group consisting of polyethylene naphthalate, polyphenylene sulfide, and polyimide; and (2) to a nonaqueous pressure-sensitive adhesive layer. Claim 1 has been amended for purposes of clarification and without adding new matter. Support for the amendment to claim 1 may be found, for example, in original dependent claim 3, and in Applicant's specification at page 4, lines 14-20 and in the Examples, which Applicant has previously noted are all nonaqueous pressure-sensitive adhesives.

Applicant believes that the amendment to claim 1 places the application in condition for allowance, or alternatively, in better condition for appeal. Applicant respectfully requests entry of the Amendment. Upon entry of this Amendment, claims 1-2 and 4-5 remain pending. Applicant respectfully requests reconsideration of the application as currently amended, and prompt allowance of the currently pending claims in view of the following arguments.

### **Rejections under 35 U.S.C. § 102/§ 103**

Claims 1, 3, and 5 stand rejected under 35 USC § 102(a) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as allegedly obvious over Knapp (US 3,284,423) and further in light of Sobataka et al. (US H688). Applicant respectfully disagrees with the rejection of the claims over Sobataka et al. and/or Knapp under 35 U.S.C. § 102(a) and 103(a), at least because the Patent Office has failed to meet its burden of establishing that Sobataka et al. and/or Knapp discloses, teaches or suggests all elements of Applicant's presently claimed invention, as required to support a rejection for alleged anticipation/obviousness.<sup>1</sup>

With respect to independent claim 1, Applicant respectfully contends that Knapp and Sobataka et al. have not been shown to disclose Applicant's presently claimed heat resistant backing film layer selected from the group consisting of polyethylene naphthalate, polyphenylene

---

<sup>1</sup> See *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81 (Fed. Cir. 1986) ("for prior art to anticipate under 102 it has to meet every element of the claimed invention").

sulfide, and polyimide, as presently claimed in Applicant's independent claim 1. Applicant believes that Knapp has been shown by the Patent Office to disclose only "substrates such as polyethylene terephthalate (Mylar), cellulose acetate, cellophane, polyvinyl chloride, polyvinylidene chloride, and metal foils."<sup>2</sup> Applicant further believes that Sobataka et al. has been shown by the Patent Office to disclose only polyethylene terephthalate (PET) film.<sup>3</sup> Applicant respectfully submits that neither Sobataka et al. and/or Knapp have been shown by the Patent Office to disclose, teach or suggest a heat resistant backing layer at all, nonetheless Applicant's presently claimed heat resistant backing film layer selected from the group consisting of polyethylene naphthalate, polyphenylene sulfide, and polyimide. Furthermore, with respect to dependent claim 3, Applicant respectfully contends that the rejection is rendered moot in view of the present cancellation of independent claim 3.

With respect to independent claim 5, Applicant respectfully contends that Knapp et al. expressly discloses "[a]pressure-sensitive crosslinked adhesive copolymer consisting of (a) 35 to 75% by weight of acrylic acid esters having between 6 and 15 carbon atoms per molecule, (b) 10 to 60% by weight of a lower alkyl acrylate taken from the group consisting of methyl acrylate and ethyl acrylate."<sup>4</sup> The lower alkyl acrylate is thus a required component of the pressure-sensitive crosslinked adhesive copolymer of Knapp et al.

In contrast, Applicant's independent claim 5 requires that the adhesive layer comprises a polymer resulting from polymerizing and cross-linking a monomer mixture consisting essentially of an alkyl (meth)acrylate with an alkyl group having 4 to 15 carbon atoms, glycidyl (meth)acrylate and (meth)acrylic acid, the glycidyl(meth)acrylate being present in an amount of 2 to 13% by weight of the total weight of monomers and the (meth)acrylic acid being present in an amount of 1 to 7% by weight of the total weight of monomers. Thus, Applicant dis-claims the methyl acrylate and ethyl acrylate required by Knapp et al, to the extent that those monomers materially affect the basic and novel characteristics of the presently claimed invention.

---

<sup>2</sup> US Pat. No. 3,284,423, col. 4, lines 37-40.

<sup>3</sup> US H688, col. 1, lines 5-9.

<sup>4</sup> US Pat. No. 3,284,423, col. 2, lines 12-20 and Claim 1.

As argued above, Applicant's specification provides clear evidence that the methyl acrylate and ethyl acrylate monomers required by Knapp et al do materially affect the basic and novel characteristics of the presently claimed invention. Applicant's Detailed Description describes embodiments of the invention as "[a] heat resistant masking tape having the specific pressure-sensitive adhesive layer [that] can be repositionable, has a sufficient adhesion strength after application, does not release or increase adhesion such as by action of heat treatment or plasma treatment, and can be released without residual of adhesive after use."<sup>5</sup> Applicant respectfully contends that Table 3 clearly shows that Comparative Examples 3 and 4 (which use solutions 6 and 7 of Table 1, which include methyl acrylate and ethyl acrylate, respectively) exhibit both excessively high Initial Adhesion Strength (3.7 and 3.3, respectively) and an unacceptable increase in Adhesion Strength After Heat Treatment (6.3 and 5.3, respectively), as to make these materials unsuitable for use in a heat-resistant masking tape as Applicant presently claims.

Claim 5 thus clearly disclaims the methyl acrylate and ethyl acrylate monomers required by Knapp et al., because clear evidence establishes that inclusion of such monomers materially affects, in an adverse manner, the basic and novel characteristics of the presently claimed invention. Therefore, the rejection of independent claim 1, dependent claims 3 (now cancelled), and independent claim 5 under 35 USC § 102(a) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as allegedly obvious over Knapp and further in light of Sobataka et al. has been overcome and should be withdrawn.

Claims 1-5 stand rejected under 35 USC § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as allegedly obvious over Liu et al. (US 4,762,747). Applicant respectfully disagrees with the rejection of the claims over Liu et al. under 35 U.S.C. § 102(a) and 103(a), at least because the Patent Office has failed to meet its burden of establishing that Liu et al. discloses, teaches or suggests all elements of Applicant's presently claimed invention, as required to maintain a rejection for alleged anticipation/obviousness.

Applicant respectfully contends that Liu et al. has not been shown to disclose Applicant's presently claimed nonaqueous pressure-sensitive adhesive layer as presently claimed in

---

<sup>5</sup> Applicant's specification, page 3, lines 26-29.

Applicant's independent claim 1. Applicant believes that Liu et al. has been shown by the Patent Office to disclose only aqueous acrylic adhesive compositions "consisting essentially of water and an acrylic polymer."<sup>6</sup> Applicant respectfully submits that Liu et al. has not been shown by the Patent Office to disclose, teach or suggest Applicant's presently claimed nonaqueous pressure-sensitive adhesive layer at all.

Furthermore, with respect to independent claim 5, Applicant respectfully contends that Applicant's use of "consisting essentially of" language in independent claim 5 effectively precludes inclusion of water in the claimed monomer mixture, because water is not a monomer as presently claimed, is not polymerizable to form the polymer, and therefore, its inclusion would be expected to materially affect the basic and novel characteristics of the presently claimed heat resistant masking tape comprising a pressure sensitive adhesive.

Therefore, the rejection of independent claim 1, and dependent claims 2, 3 (now rendered moot in view of the present cancellation) and 4, and independent claim 5, under 35 USC § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as allegedly obvious over Liu et al. has been overcome and should be withdrawn.

#### **Rejections under 35 U.S.C. § 103**

Claims 1-5 stand rejected under 35 USC § 103(a) as allegedly being obvious and therefore unpatentable over Takeda et al. (WO 03/064552 A1). Applicant has submitted herewith a certified copy of Japanese Patent Application JP 2007-184555, to which the presently pending patent application claims priority under 35 U.S.C. § 371. The Date of Application as plainly indicated in English on the face of the Japanese priority document is August 6, 2003. Applicant respectfully directs the Patent Office to the fact that Takeda et al., on its face, admits an International Publication Date of August 7, 2003, a Priority Date (if foreign priority is accorded) of January 31, 2002, and also lists Applicant as 3M Innovative Properties Company.

Applicant respectfully contends that Takeda et al. has not properly been established as a prior art reference to the presently pending patent application as a prior printed publication or issued patent under 35 U.S.C. § 102 (a)-(b) or (d). Applicant further respectfully contends that Takeda et al. (if foreign priority is accorded and the reference is cited by the Patent Office as

---

<sup>6</sup> US Pat. No. 4,762,747, Abstract, Examples 1-7, and Claim 1.

prior art under 35 U.S.C. § 102(e)) is disqualified as prior art under 35 U.S.C. 103(c), as Takeda et al. and the presently pending application are both subject to an obligation of assignment to 3M Innovative Properties Company, as indicated on the face of Takeda et al. and by the assignment documents filed with the presently pending application. Applicant respectfully submits that the Patent Office has not met its burden of showing that Takeda et al. is a proper prior art reference under 35 U.S.C. § 102, as required to support a rejection under 35 U.S.C. § 103(a). The rejection of claims 1-5 under 35 USC § 103(a) as allegedly being obvious and unpatentable over Takeda et al. is therefore improper, and should be withdrawn.

Claims 1, 2, 4, and 5 stand rejected under 35 USC § 103(a) as allegedly being obvious and therefore unpatentable over Yamanaka et al. (US 2003/0124346 A1). Claim 3 (now cancelled) stands rejected under 35 USC § 103(a) as allegedly being obvious and therefore unpatentable over Yamanaka et al. (US 2003/0124346 A1) in view of Groves (US 5,229,206) and Sobataka et al. (US H688). Applicant respectfully submits that the rejection of claim 3 is rendered moot in view of the present amendment cancelling claim 3.

In addition, Applicant respectfully disagrees with the rejections of the claims under 35 U.S.C. 103(a), at least because the Patent Office has failed to meet its burden of establishing that Yamanaka et al., alone or in view of Groves and Sobataka et al., discloses, teaches or suggests all elements of Applicant's presently claimed invention, as required to maintain a rejection for alleged anticipation/obviousness. Applicant respectfully contends that Yamanaka et al., Groves and Sobataka et al. have not been shown to disclose Applicant's presently claimed heat resistant backing film layer selected from the group consisting of polyethylene naphthalate, polyphenylene sulfide, and polyimide, as presently claimed in Applicant's independent claim 1.

Applicant believes that Yamanaka et al. has been shown by the Patent Office to disclose only "polyethylene films, polypropylene films, and polyester films, metal foils, and porous base materials such as papers and nonwoven fabrics."<sup>7</sup> Applicant also believes that Groves has been shown by the Patent Office to disclose only films of "polypropylene, polyethylene, polyvinyl chloride, polyester (e.g. polyethylene terephthalate) cellulose acetate, and ethyl cellulose."<sup>8</sup>

---

<sup>7</sup> US Pat. Pub. No. 2003/0124346, ¶ [0072].

<sup>8</sup> US 5,229,206, col. 7, lines 22-24).

Applicant further believes that Sobataka et al. has been shown by the Patent Office to disclose only polyethylene terephthalate (PET) film.<sup>9</sup> Applicant respectfully submits that none of Yamanaka et al., Groves or Sobataka et al. have been shown by the Patent Office to disclose, teach or suggest a heat resistant backing layer at all, nonetheless Applicant's presently claimed heat resistant backing film layer selected from the group consisting of polyethylene naphthalate, polyphenylene sulfide, and polyimide. Therefore, the rejection of claims 1, 2, 4, and 5 under 35 USC § 103(a) as allegedly being unpatentable over Yamanaka et al., and claim 3 as allegedly being unpatentable over Yamanaka et al. in view of Groves and Sobataka et al., has been overcome in part and is rendered moot in part and should be withdrawn.

### **CONCLUSION**

Entry of the amendment to the pending claims is respectfully requested. For at least the foregoing reasons, the Office Action has not met its burden of showing that the prior art anticipates or makes obvious Applicant's presently claimed invention. The rejection of claims 1-5 under 35 U.S.C. § 102(a) and (b) as allegedly anticipated by, and 35 U.S.C. § 103(a) as allegedly being obvious over the cited references has been overcome in part, and is moot in part in view of the present amendment, and should be withdrawn. In view of the above, it is submitted that the application is in condition for allowance. Allowance of all pending claims at an early date is solicited. The Examiner is invited to contact Applicant's attorney to resolve any remaining questions.

June 10, 2008

Date

Respectfully submitted,

By: 

James A. Baker, Reg. No.: 44,520

Telephone No.: 651-736-9667

Office of Intellectual Property Counsel  
3M Innovative Properties Company  
Facsimile No.: 651-736-3833

---

<sup>9</sup> US H688, col. 1, lines 5-9.

Fr

Al

First Named Inventor: **SHINOHARA, MASARU**

Fi

Case No.: **59383US007**

Ti

Application No.: **10/561,358**

Title: **HEAT RESISTANT MASKING TAPE**

Enclosures: **Amendment and Response under 37 CFR  
§ 1.116 and a Certified Copy of  
JP2003-206343**

P

S

Amount charged to Deposit Account: **N/A**

act

—

Attorney (initials): **JB/spg**

D

Date: **June 10, 2008**

A